

Multi-criteria structured educational factors for project managers

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ABSTRACT:

Recently, the strategic project management (SPM) is considered as a dynamic activity within strategic management process. The literature shows that, many scholars highlighted three main factors in SPM mainly the structure, leadership style, and resources. To implement strategy successfully, attention must be paid to a number of organizational issues, especially organizational structure. It is expected that performance in firms is correlated with the use of structural features that, must support the strategy. Furthermore, cines last decades it is argued that the leadership style of the entrepreneur can have a significant effect on implementation of strategy. And successful strategy realization is determined by the coherence of decisions and actions of all employee resources at all levels of the organization, and not just by the people who originally defined the strategy. To ensure that strategy is realized at all levels of the organization, a mechanism is necessary to direct all employees and other resources towards the same strategic project management. In this study we prepare a structural equation model on SPM factors and the relation of SPM with organization financial performance. Our data gathered from 211 project managers and our tool of data analysis was AMOS SEM software. The results confirm the importance of mentioned criteria so we can suggest our educational model base on the research.

Keywords: Strategic management, Strategic project management, Implementation, Iran, structural equation modeling.

INTRODUCTION:

SPM has been the subject of increased study and research for solutions, especially since the process from project formulation to project implementation is not efficient and is, certainly in the present business environment, inadequate (Heracleous, 2000). Recently, the project implementation in SMEs is considered to be a dynamic activity within strategic management process, which might involve changes whiten the overall culture, structure, and/or, management system of the entire organization. It is investigated the project implementation in project management (Cleland & Ireland, 2006; Grundy, 1998; Hauc & Kova, 2000). Implementation has been defined as "... the sum total of the activities and choices required for a strategic plan ... the process by which strategies and policies are put into action..."(Wheelen, Hunger, & Hunger, 2009). Totally, well-formulated projects only produce superior performance for the firm when they are successfully implemented (Li, Guohui, & Eppler, 2008; Noble, 1999; Smit, 2000).

Objective of this research was to explore how productive, SPM might be. To reach the objective of the research we hypothesise our model in figure 1.

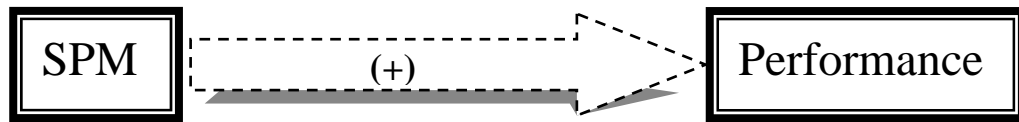


Figure1: Hypothised model.

In the context of SMEs, the role of top management as strategic makers has greater impact for implementing the project and they have authority in decision making that influence the whole organization structure. The managerial skill is crucial for management to SPM correctly and appropriately. Indeed, successful strategies depend on effective SPM (Jiang, 2009).

The costs of failure implementation efforts to the organization are enormous (Heracleous, 2000; Noble, 1999). Apart from wasting significant amount of time and money, they result in lower employee morale, a diminished trust and faith in senior management, as well as end up in creating an even more inflexible organization, since an organization which has failed to change will encounter more employee cynicism in its next attempt (Heracleous, 2000). Now the question is that, how is SPM to be implemented effectively? From among different organization factors, three of those including leadership, structure and human resource play a significant role in project implementation (A.Karami, 2005).

Leadership

It has been discussed that, top managers play a critical role in the implementation –not just the formulation- of project (Kakabadse & Kakabadse, 2000). Recent studies concluded that, it is the role of top executives to ensure the smooth operation of the entire executive structure and to communicate effectively with that executive structure. Karami suggests research into the process by which the top management team includes middle management in project formulation and/or effectively disseminates goals and strategies through the management structure (A.Karami, 2005).

There has been an evaluation of approaches to SPM, from more autocratic to more autocratic to more participative; Bourgeois and Brodwin in studying the management practices of companies, have found that, CEOs approaches to SPM can be categorized into one of five basic descriptions. These categories can be categorized into one of five basic descriptions (Bourgeois & Brodwin, 1998), These categories are including:

- The commander approach,
- The organizational change approach,
- The collaborative approach,
- The cultural approach,
- The coercive approach

The first two description present traditional approach to SPM. Here the CEO formulation project first, and think about SPM later. The next two approaches involve more recent attempts enhance SPM by broadening the base of participation into the planning process. The final approach takes advantages of manager's natural inclination to develop opportunities as they are encountered. Similarly the role of CEOs in SPM has been studied and It is argued that, CEOs play a variety of roles as commander, architect of implementing the planned project, co-coordinator, coach, and primer-setter roles in SPM (Heracleous, 2000).

SPM and structure

Organizational structure has been considered as the basic element of effective SPM. An important year for the field of strategic management was 1962 when Chandler's work 'project and structure' was published ("Business Strategy/History of Business Management until the 1970s," 2010; Geiger, 2006; Hoskisson, Hitt, Wan, & Yiu, 1999). According to Chandler, project is the determination of the basic long term goals and objectives of an enterprise, and the adoption of courses of action and the allocation resources necessary for carrying out the goals and structure is the design of organization through which the enterprise administrated (Chandler, 1962). Although organizations changed their growth to suit technological, economic and demographic changes, new strategies creates administrative problem and economic inefficiencies. Structural changes were needed to solve those problem and to maximize

performance (H.K.LAKSHMANRAO, 2008). In some view of points, organizational structure is a matter of how the project is implemented and it is next step after project making (Lynch, 2006).

Human resources

Based on the new based view of the firm, resources are defined the set of assets and capacities, both tangible and intangible, which when competitively superior, scarce, and appropriate, have the potential to create value from diversification (Collis & Montgomery, 2004). Commonly referred to as core competencies, the term resources actually cover a broader range of assets that can contribute to the competitive advantage of many different business. Resources are the criteria building blocks of project. They determine not what a firm wants to do, but what it can do. Resources are input into a firm's production process such as capital equipment, the skills of individual employees, patents, finance, and talent managers. The resource base approach to SPM considers human resource as a unique source of competitive advantages of the firm (Brown, 2007; Dunford, Snell, & Wright, 2009). It has been argued that, there ought to be a link between a firm's strategy and the utilization of its human resources (Lee, Lee, & Wu, 2010). The notion surrounding the importance of human resource in the distinctive sense of the term is based around the notion that people management can be a key source of sustained competitive advantage; In fact, most contemporary researchers concur that HR acts as a factor in determining the performance of the firm (Ahmad & Schroeder, 2003; Lee, et al., 2010).

Performance:

The financial performance construct is arguably one of the most important constructs in strategy and organizational research for the simple reason that almost every model attempts to relate the constructs of interest of performance. Indeed one must inquire as to the value of any particular course of action if it does not impact performance. According to Venkatraman and Ramanujam, financial performance improvement is at the heart of project research(Venkatraman & Ramanujam, 1986).

Methodology:

We prove reliability of measurement variables and latent variables with cronbach alpha. The result is shown in table 1. The sample of study consisted of 470 SMEs of manufacturing industry in south of Iran, using survey questionnaire which resulted in 211 completed responses. Structural equation modeling (SEM) was used for exploring confirmatory factor analysis to test the unidimensionality of each construct. All SEM analysis was conducted using AMOS 16.0 SEM software.

Table1: variables of study

Variable	Measurement	Code	alpha
SPM	Quality of leadership	Zq153	0.63
SPM	Attention to structure	Zq154	
SPM	Attention to HRM	Zq171	
performance	Cost of product	Zq251	0.71
performance	Average return on assets over the last three years	Zq252	
performance	Average per cent change in sales over last three years	Zq253	

Results:

The result of hypothesis testing and found standardized research model using SEM is presented in figure 2. Factors of fitness present in table 2.

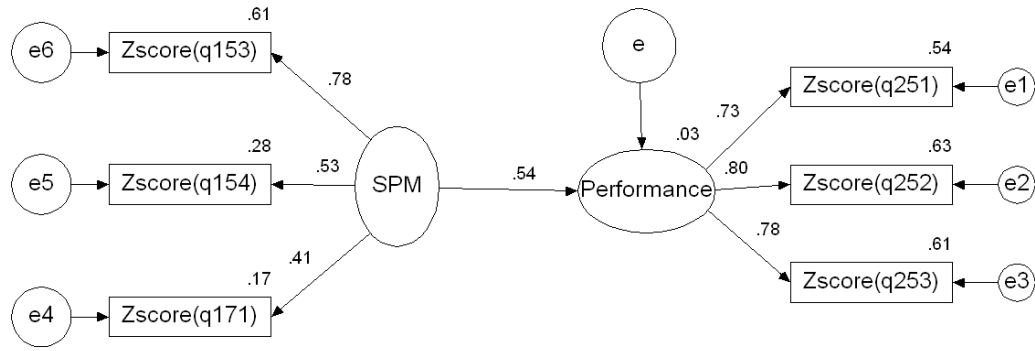


Figure 2: Found model.

Table 2: Fitness factors.

A. *CMIN*

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	13	29.641	8	.000	3.705
Saturated model	21	.000	0		
Independence model	6	459.909	15	.000	30.661

B. *RMR, GFI*

Model	RMR	GFI	AGFI	PGFI
Default model	.044	.971	.924	.370
Saturated model	.000	1.000		
Independence model	.260	.671	.539	.479

C. *Baseline Comparisons*

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.936	.879	.952	.909	.951
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

D. *RMSEA*

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.092	.058	.128	.023
Independence model	.304	.281	.329	.000

So the hypnotized model of research will be supported by the found model. As usually in civil field or industrial engineering fields for training project managers our found criteria doesn't have any attention we suggest focus on three SPM criteria in educational trainings for project managers.

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